

General

Title

Chronic wound care: percentage of patient visits for those patients aged 18 years and older with a diagnosis of chronic skin ulcer without the use of a wound surface culture technique.

Source(s)

American Society for Plastic Surgeons (ASPS), Physician Consortium for Performance Improvement®, National Committee for Quality Assurance (NCQA). Chronic wound care physician performance measurement set. Chicago (IL): American Medical Association (AMA); 2008 Aug. 35 p. [19 references]

Measure Domain

Primary Measure Domain

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of patient visits for those patients aged 18 years and older with a diagnosis of chronic skin ulcer without the use of a wound surface culture technique.

Rationale

Infections are a potential complication in any patient with a chronic wound. Accurately determining the pathogenic cause of these clinically diagnosed infections has important implications in determining appropriate treatment regimens and minimizing patient complications. Surface swab cultures are inaccurate and unreliable for obtaining specimens for culture. A surface swab of an unprepared wound bed

will not necessarily reveal the organism that resides within the tissue but rather only the surface contaminants. A basic tenet of infection within a chronic wound is that the organism must reside in living tissue. Swab culture of the surface may not reveal this in the presence of significant necrotic tissue or exudate. A recent survey of wound care practitioners in the US found that 54% of respondents routinely collect a swab culture while another 42% routinely collect both swab and biopsy specimens depending on the nature of the wound. More importantly, the study demonstrated considerable variability in the type of swab culture commonly obtained - including surface, deep swab and quantitative techniques. Despite their limited utility and the proven efficacy of quantitative swab and other techniques, surface cultures remain a common method for identifying chronic wound infection. The principle here is to avoid swabbing the unprepared wound exudate. Preparation of the wound with physiologic solution and removal of loose tissue matter prior to obtaining the wound culture will not impede the diagnosis of an offending organism, rather it will lessen the probability of identifying and treating a surface contaminant that will not impact progression to healing. In other words, no information is lost by wound bed preparation prior to swab or tissue biopsy technique culture. The goal is to obtain tissue microorganisms from the viable deeper tissue plane.

The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:

Avoid swabbing unbridged ulcers or wound drainage. If swabbing the debrided wound base is the only available culture option, use a swab designed for culturing aerobic and anaerobic organisms and rapidly transport it to the laboratory. (Lipsky et al., IDSA, 2004)

...determine the type and level of infection in the debrided ulcer by tissue biopsy or by a validated quantitative swab technique. (Wound Healing Society [WHS], 2006)

[Q]uantitative culture has been shown to have high predictive value, sensitivity, and specificity. Most authors recommend the following technique for acquiring high quality wound cultures: After skin disinfection, a strip of necrotic wound tissue weighing 0.1 to 0.5 gram is excised for quantitative culture. This specimen is placed in an aerobic/anaerobic culture medium. Simultaneously, routine cotton swab is taken from the site of excision-debridement, taking care to avoid the ulcer's surface. It may occasionally be necessary to biopsy the ulcer in order to rule out [the] uncommon causes of lower extremity ulcers. (American Society of Plastic Surgeons [ASPS], 2007)

...swab specimens collected from wounds using Levine's technique performed better than swab specimens collected using either the wound exudate or Z-technique. Equally important, the findings suggest that swab specimens obtained using Levine's technique and processed using quantitative laboratory procedures are acceptably accurate when compared with the quantitative cultures of wound tissue. ...swab specimens obtained with Levine's technique will enable a wider variety of wounds to be monitored for wound bioburden than tissue cultures. In addition, Levine's technique will be much more practical for repeating cultures in suspicious wounds that produce negative findings initially than tissue cultures. (Gardner et al., 2006)

Primary Clinical Component

Chronic wound care; chronic skin ulcer; wound surface culture technique

Denominator Description

All patient visits for those patients aged 18 years and older with a diagnosis of chronic skin ulcer (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Patient visits without the use of a wound surface culture technique (see the related "Numerator Inclusions/Exclusions" field)

Evidence Supporting the Measure

Evidence Supporting the Criterion of Quality

A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed

Evidence Supporting Need for the Measure

Need for the Measure

Variation in quality for the performance measured

Evidence Supporting Need for the Measure

American Society for Plastic Surgeons (ASPS), Physician Consortium for Performance Improvement®®, National Committee for Quality Assurance (NCQA). Chronic wound care physician performance measurement set. Chicago (IL): American Medical Association (AMA); 2008 Aug. 35 p. [19 references]

State of Use of the Measure

State of Use

Current routine use

Current Use

Internal quality improvement

Application of Measure in its Current Use

Care Setting

Physician Group Practices/Clinics

Professionals Responsible for Health Care

Physicians

Lowest Level of Health Care Delivery Addressed

Individual Clinicians

Target Population Age

Age greater than or equal to 18 years

Target Population Gender

Either male or female

Stratification by Vulnerable Populations

Unspecified

Characteristics of the Primary Clinical Component

Incidence/Prevalence

See the "Rationale" field.

Association with Vulnerable Populations

Unspecified

Burden of Illness

Unspecified

Utilization

Unspecified

Costs

Unspecified

Institute of Medicine (IOM) Healthcare Quality Report Categories

IOM Care Need

Getting Better

Living with Illness

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding

Users of care only

Description of Case Finding

All patient visits for those patients aged 18 years and older with a diagnosis of chronic skin ulcer

Denominator Sampling Frame

Patients associated with provider

Denominator Inclusions/Exclusions

Inclusions

All patient visits for those patients aged 18 years and older with a diagnosis of chronic skin ulcer

Note: Refer to the original measure documentation for administrative codes.

Exclusions

Documentation of medical reason(s) for using a wound surface culture technique (e.g., surface culture for methicillin-resistant staphylococcus aureus (MRSA) screening)

Relationship of Denominator to Numerator

All cases in the denominator are equally eligible to appear in the numerator

Denominator (Index) Event

Clinical Condition

Encounter

Denominator Time Window

Time window is a single point in time

Numerator Inclusions/Exclusions

Inclusions

Patient visits without the use of a wound surface culture technique*

*The numerator will also be met if there is documentation that a technique other than surface culture of the wound exudate has been used to acquire the wound culture (e.g., Levine/deep swab technique, semi-quantitative or quantitative swab technique).

Note: Refer to the original measure documentation for administrative codes.

Exclusions

None

Measure Results Under Control of Health Care Professionals, Organizations and/or Policymakers

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

Numerator Time Window

Encounter or point in time

Data Source

Administrative data

Medical record

Level of Determination of Quality

Individual Case

Pre-existing Instrument Used

Unspecified

Computation of the Measure

Scoring

Rate

Interpretation of Score

Better quality is associated with a higher score

Allowance for Patient Factors

Unspecified

Standard of Comparison

Internal time comparison

Evaluation of Measure Properties

Extent of Measure Testing

Unspecified

Identifying Information

Original Title

Measure #1: use of wound surface culture technique in patients with chronic skin ulcers (overuse measure).

Measure Collection Name

The Physician Consortium for Performance Improvement® Measurement Sets

Measure Set Name

Chronic Wound Care Physician Performance Measurement Set

Submitter

American Medical Association on behalf of the American Society of Plastic Surgeons, Physician Consortium for Performance Improvement®, and National Committee for Quality Assurance - Medical Specialty Society

Developer

American Society of Plastic Surgeons - Medical Specialty Society

National Committee for Quality Assurance - Health Care Accreditation Organization

Physician Consortium for Performance Improvement® - Clinical Specialty Collaboration

Funding Source(s)

Unspecified

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Financial Disclosures/Other Potential Conflicts of Interest

Conflicts, if any, are disclosed in accordance with the Physician Consortium for Performance Improvement® conflict of interest policy.

Included in

Ambulatory Care Quality Alliance

Adaptation

Measure was not adapted from another source.

Release Date

2008 Aug

Measure Status

This is the current release of the measure.

The Physician Consortium for Performance Improvement reaffirmed the currency of this measure in November 2010.

Source(s)

American Society for Plastic Surgeons (ASPS), Physician Consortium for Performance Improvement®, National Committee for Quality Assurance (NCQA). Chronic wound care physician performance measurement set. Chicago (IL): American Medical Association (AMA); 2008 Aug. 35 p. [19 references]

Measure Availability

The individual measure, "Measure #1: Use of Wound Surface Culture Technique in Patients with Chronic Skin Ulcers (Overuse Measure)," is published in "Chronic Wound Care Physician Performance Measurement Set." This document and technical specifications are available in Portable Document Format (PDF) from the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement® Web site: www.physicianconsortium.org .

For further information, please contact AMA staff by e-mail at cqi@ama-assn.org.

NQMC Status

This NQMC summary was completed by ECRI Institute on April 7, 2009. The information was verified by the measure developer on June 4, 2009. The information was reaffirmed by the measure developer on November 17, 2010.

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